

Amendments to the Claims:

There have been no changes to the claims. This listing of claims has been provided for the Examiner's convenience.

1. – 22. (Cancelled)

23. (Previously Presented) A method for processing input image data, the method comprising the steps of:

receiving image data that includes data representing a plurality of pixels, wherein each pixel of the plurality of pixels is associated with a location and one of at least three intensities;

accessing data in a memory, the data representing a screen, the screen including a plurality of planes, each plane of the plurality of planes including a plurality of cells, wherein each cell of the plurality of cells is associated with one of at least three microdot densities, the microdot densities being representative of a particular dot size capable of being printed by a gray-level printer;

for each pixel ("current pixel") of the plurality of pixels:
determining the intensity and the location of the current pixel, selecting one of the plurality of planes based at least upon the current pixel's intensity, and associating one of the plurality of microdot densities in the selected plane with the current pixel based at least upon the current pixel's location;

outputting the microdot densities associated with the plurality of pixels as first gray-level data;

blending the first gray-level data with second gray-level data resulting in blended-gray-level data, wherein the blending weights the first gray-level data and the second gray-level data depending upon characteristics of the image data;

performing edge enhancement on portions of the blended-gray-level data that include text or high-contrast-edge data, thereby resulting in enhanced-blended-gray-level data; and

outputting the enhanced-blended-gray-level data.

24. (Previously Presented) An image processing apparatus comprising:

- a memory storing data representing a screen, the screen including a plurality of planes, each plane of the plurality of planes including a plurality of cells, wherein each cell of the plurality of cells is associated with one of at least three microdot densities, the microdot densities being representative of a particular dot size capable of being printed by a gray level printer;
- a first circuit configured at least to:
 - receive image data that includes data representing a plurality of pixels, wherein each pixel of the plurality of pixels is associated with a location and one of at least three intensities, and
 - for each pixel ("current pixel") of the plurality of pixels: determine the intensity and the location of the current pixel, select one of the plurality of planes based at least upon the current pixel's intensity, associate one of the plurality of microdot densities in the selected plane with the current pixel based at least upon the current pixel's location, and output the microdot densities associated with the plurality of pixels as first gray-level data;
- a second circuit configured at least to receive the image data and output second gray-level data;
- a blending circuit communicatively connected to the first circuit and the second circuit and configured at least to blend the first gray-level data with the second gray-level data, thereby resulting in blended-gray-level data, wherein the blending performed by the blending circuit weights the first gray-level data and the second gray-level data depending upon characteristics of the image data;
- an edge enhancement circuit communicatively connected to the blending circuit and configured at least to perform edge enhancement on portions of the blended-gray-level data that include text or high-contrast-edge data, thereby resulting in enhanced-blended-gray-level data; and
- an output circuit communicatively connected to the edge enhancement circuit and configured at least to output the enhanced-blended-gray-level data.

25. (Previously Presented) The method of Claim 23, wherein the screen is a multilevel stochastic screen.

26. (Previously Presented) The method of Claim 23, wherein the screen is a halftone screen.

27. (Previously Presented) The method of Claim 23, wherein the blending step only blends midtone, high-contrast, or midtone and high-contrast regions of an image.

28. (Previously Presented) The method of Claim 23, wherein the first gray-level data and the second gray-level data are color matched, structure matched, density matched, or combinations thereof.

29. (Previously Presented) The apparatus of Claim 24, wherein the screen is a multilevel stochastic screen.

30. (Previously Presented) The apparatus of Claim 24, wherein the screen is a halftone screen.

31. (Previously Presented) The apparatus of Claim 24, wherein the blending circuit only blends midtone, high-contrast, or midtone and high-contrast regions of an image.

32. (Previously Presented) The apparatus of Claim 24, wherein the first gray-level data and the second gray-level data are color matched, structure matched, density matched, or combinations thereof.